

1 Summary

STS43 、STS43R provides a fully floating DC power supply to two-wire 4/20mA transmitter of danger zone, and recurs current signal in two output floating loops to drive the two loads of safety zone.

The product meets the relevant regulations of GB3836.1-2000 “Part 1 of Explosive Gas Atmosphere Electrical Equipment: General requirement”, and GB3836.4-2000 “Explosive Gas Explosion-proof Electrical Environment Equipment: Intrinsic Safety ‘I’”, and obtained a national explosion inspection agency issued certificate of explosion-proof products, can be applied to different intrinsic safety and explosion-proof system.

2 Technical Specifications

Channel	Single channel, Fully floating
Area of transmitter	zone 0, II C, T4-6 danger zone Zone 1, Group A, Danger zone
Safety zone output	Signal range: 4~20mA Safety zone load resistance: 0~550Ω Output resistance of loop: >1MΩ
Danger zone input	Signal range: 4~20mA Voltage Distribution: at 20mA >15.5V Conversion precision (%): 0.1。 Temperature drift: <1μA/℃。
LED display	Green: Source indication
Source	(20~35) VDC。
Power consumption (20 mA signal):	at 24V, 110mA。

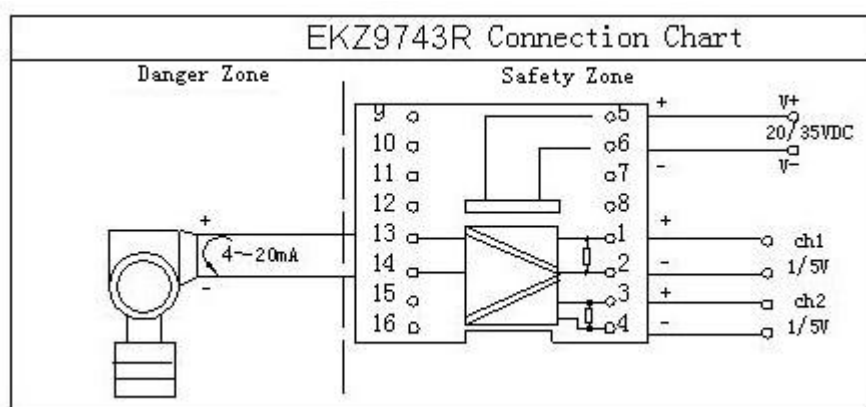
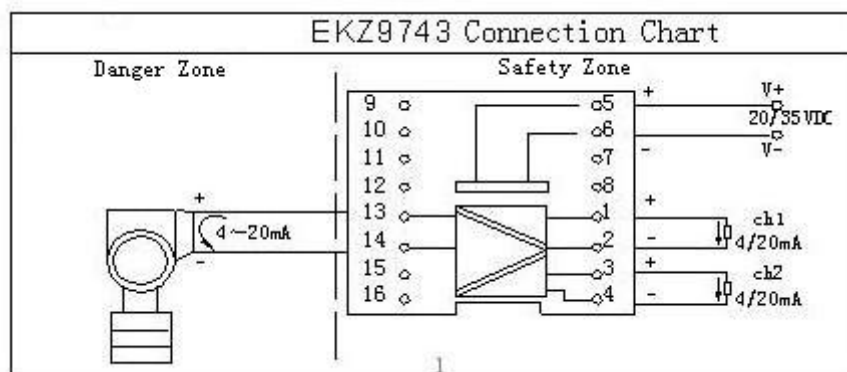
2.1 Conditions of Use

- a) Environmental temperature: -10 degrees ~+50 ℃;
- b) Relative humidity: <90% (25 ° C);
- c) Atmospheric pressure: 80kPa~110kPa;
- d) No explosive dangerous gases.
- E) Safety Barrier should be installed in the security zone, An end-of the maximum allowable voltage of 250V Um Queen and may not have vibration, shock, Electricity is not much spark and the impact of electromagnetic induction and the surrounding environment without strong corrosion place.
- F) Safety Barrier even distribution of the scene instrumentation should be subject to national anti-explosive testing unit identification and scored the explosion-proof certification class Commodities

3 Safety Specifications

$U_0=28V$, $I_0=93\text{ mA}$, $P_0=660mW$

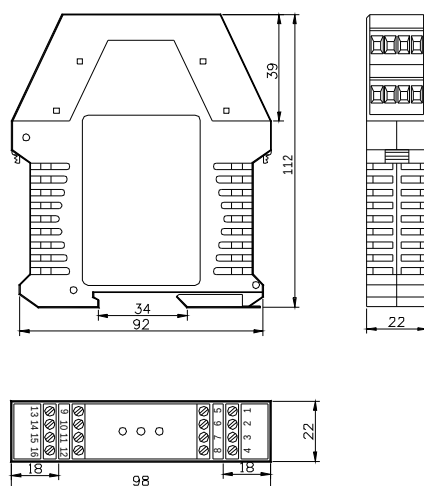
4 Signal Connections



5 STS43, STS43R Terminal Functions

Terminal Safety Zone	Function	Terminal Danger Zone	Function
1	Output +V (ch1)	9	Empty
2	Output -V (ch1)	10	Empty
3	Output +V (ch2)	11	Empty
4	Output -V (ch2)	12	Empty
5	Power +V	13	Input +V
6	Power -V	14	Input -V
7	Empty	15	Empty
8	Empty	16	Empty

6 Dimensions



7 Installations

7.1 Guideway: Isolate barrier is installed on the standard international generic M35 Guideway.

7.2 Terminal lead: Rubber insulated cables, cable insulation strength should be above AC500V, traverse number of lead should not less than 30, and cross-section area greater than 0.75mm^2

7.3 Installation notes

- Isolate barrier should be put in a safe place to ensure the cleaning and no corrosive gas.
- The circuit wiring of intrinsic ends (blue) and non-intrinsic ends (yellow) of the isolate barrier is prohibited from wrong and confusion. The intrinsic safe leads should use the blue as the marking; intrinsic leads and non-intrinsic leads should be installed separately in the leads slot, and use different casing tubes. The intrinsic safety side of isolate barrier is not allowed to have a mixture of other power, including other power supply with intrinsic safety current.
- When the isolate barriers are with concentrated layout, it should make the intrinsic side adjacent with the intrinsic side and non-intrinsic side adjacent with the non-intrinsic side to avoid the confusion.
- On the separate power supply debugging of isolate barrier, it is important to pay attention to the model, power polarity, voltage grading and connector tab on the shell of isolate barriers.
- It is forbidden to test the insulation between the terminals of isolate barrier with insulation ohmmeter, to check the insulation of the system lines, it should disconnect all isolate barriers at first, otherwise it would cause the fuse of internal instant fuse.
- If the internal module of isolate barrier is damaged and needs replacement, it is needed to return to the factory for repairing. The repaired isolate barriers should have a comprehensive re-examination before being put into operation.
- The installation, use and maintenance of isolate barrier should strictly abide by the relevant contents of GB3836.15-2000 "Part 15 of Explosive Gas Electrical Equipment: Dangerous place electrical installation (except mine)", GB50058-1992 "Electrical Equipment design code of Explosion and Fire Risk Environment" and

product brochures.

8 Package and Storage

8.1 Isolate barriers should be packed with transparent plastic bags and put in the special packing boxes.

8.2 Isolate barriers should be stored in a ventilation indoor environment with ambient temperature of 5-40°C and relative humidity less than 85%, and without corrosive gases in the air.

8.3 Attachment

A copy of product brochure

A copy of product certification

9 Warranty

The normal product warranty period is 18 months, the damage caused by improper use is not within the scope of warranty.